

CLAIM AMENDMENTS

1. (Withdrawn) A cannula assembly for the maintenance of an operative pneumoperitoneum in a patient comprising:

an elongated cannula having a proximal end and a distal end;

an air inflow inlet arranged in said cannula as a laparoscopic instrument is introduced through said cannula, between said instrument and an inner wall of said cannula.

2. (Withdrawn) The cannula assembly as recited in claim 1, including:

a valve securably arranged at said proximal end of said cannula to provide a tight seal and minimize the escape of gas introduced into the patient's pneumoperitoneum when an operative instrument is passed therethrough.

3. (Withdrawn) The cannula assembly as recited claim 1 wherein said valve comprises an inner portion of a proximal cap which is removably attachable to said proximal end of said cannula.

4. (Withdrawn) The cannula assembly as recited in claim 3, wherein said valve assembly has a compressible O-ring thereon to provide a further seal of said cap to said cannula.

5. (Withdrawn) The cannula assembly as recited in claim 2 wherein said valve has a plurality of fluid flow directing fins thereon to direct any backflow of gas to tighten the sealing effect of said valve.

6. (Withdrawn) The cannula assembly as recited in claim 2 wherein said valve has a distal underside with a pocket arrangement thereon to capture any backflowing gas and create a more efficient seal by said valve in said cannula.

7. (Withdrawn) The cannula assembly as recited in claim 2, wherein said operative instrument has at least one gaseous fluid discharge port arranged thereon to permit the introduction of distension gas through said instrument and into said patient.

8. (Withdrawn) The cannula assembly as recited in claim 7, wherein said gaseous port comprises a collar disposed about at least a peripheral portion of said instrument, said collar having at least one discharge jet thereon to provide pressurized gas from a controlled pressure source to said patient's abdomen.

9. (Currently Amended) A method of maintaining an operative pneumoperitoneum in a patient undergoing a surgical procedure comprising the steps of:

introducing a trocar through a portion of an abdominal wall of ~~said~~a patient;
introducing ~~an operative~~a surgical instrument through a lumen in ~~said~~the trocar; and
introducing a pressurized gas from a controlled pressure source into ~~said~~the surgical
instrument; and

directing the pressurized gas from the surgical instrument into the patient through a
passageway between ~~said~~the surgical instrument and a wall of ~~said~~the lumen in ~~said~~the trocar.

10. (Currently Amended) The method as recited in claim 9, further including the step of:
~~introducing said pressurized gas into said~~sealing the passageway between ~~said~~the surgical
instrument and ~~a~~the wall of ~~said~~the lumen in ~~said~~the trocar ~~via at least one port in said trocar to~~
block the escape of gas introduced into the patient.

11. (Currently Amended) The method as recited in claim 9, ~~including:~~wherein the step of
directing pressurized gas from the surgical instrument into ~~said~~the patient through a passageway
between ~~said~~the surgical instrument and a wall of ~~said~~the lumen in ~~said~~the trocar ~~via~~involves
directing a flow of pressurized gas through at least one port in a wall portion of ~~said~~the surgical
instrument.

12. (Currently Amended) The method as recited in claim 9, further including the steps of:
introducing ~~at least one a~~ first cannula into an abdominal wall portion of ~~said~~the patient;
and
introducing at least one operative surgical instrument through ~~said~~the first ~~at least one~~
cannula to permit simultaneous operative function with ~~said~~the trocar ~~as said trocar is caused to~~
~~introduce distension gas into said patient.~~

13. (Currently Amended) The method as recited in claim 12, further including the steps
of:
introducing a ~~further~~second cannula into ~~said~~the patient ~~being operated upon; and~~

monitoring the pneumoperitoneum of ~~said~~the patient through ~~said further~~the second
cannula introduced into ~~said~~ patient.

14. (Currently Amended) The method as recited in claim ~~12~~10, ~~including;~~wherein the
step of sealing the passageway between the surgical instrument and the wall of the lumen in the
trocar includes the step of arranging a removable valve onto saidat a proximal end portion of
~~said~~the trocar.

15. (Currently Amended) A method of maintaining an operative pneumoperitoneum in a
patient undergoing a surgical procedure comprising:

introducing a trocar through a portion of an abdominal wall of ~~said~~a patient at a first site;

introducing ~~an operative~~at least one surgical instrument through a lumen in ~~said~~the trocar;

introducing a pressurized gas from a controlled pressure source into ~~said~~the at least one
surgical instrument;

directing the pressurized gas from the at least one surgical instrument into the patient
through ~~an~~a gas passageway between ~~said~~the at least one surgical instrument and a wall of
~~said~~the lumen in ~~said~~the trocar;

sealing the passageway between the at least one surgical instrument and the wall of the
lumen in the trocar;

introducing a cannula through ~~said~~the abdominal wall of ~~said~~the patient at a second site;

monitoring gas pressure within the abdomen of the patient through the cannula; and

~~connecting said trocar and said cannula in fluid communication with one another through a conduit arranged therebetween to provide;~~

~~controlled~~controlling gas pressure within the abdomen of ~~said~~the patient based upon feedback from the cannula.

16. (Currently Amended) The method as recited in claim 15, ~~including~~wherein the step of:

~~arranging an air seal in said~~sealing the passageway between the surgical instrument and the wall of the lumen in the trocar at a location proximal to said includes the step of forming a pressurized gas seal about the instrument within the passageway therein.

17. (Currently Amended) The method as recited in claim 15, wherein ~~said~~the trocar ~~which introduces gas into said patient~~ and ~~said~~the cannula are arranged in operative communication with one another to controllably balance ~~said~~ pressurized gas introduced into ~~said~~the patient.

18. (Currently Amended) The method as recited in claim 15, wherein ~~said~~the trocar has a plurality of ~~medically operative~~surgical instruments extending therethrough simultaneously.

19. (Currently Amended) The method as recited in claim 15, wherein ~~said~~the cannula has an open bore extending therethrough to permit operative instruments therethrough ~~without a mechanical seal.~~

20. (New) The method as recited in Claim 10, wherein the step of sealing the passageway between the surgical instrument and the wall of the lumen in the trocar includes the step of forming a pressurized gas seal about the surgical instrument within the passageway.

21. (New) The method as recited in Claim 9, wherein the step of directing the pressurized gas from the surgical instrument into the patient involves directing a flow of pressurized gas into the lumen of the trocar at a location distal to any valve arrangement within the trocar.